2012 CONSUMER CONFIDENCE REPORT

Moss Landing Mutual Water Company	FA0810155	June 17, 2013
Name of Water System	I.D. No.	Report Date

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2012 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

WATER SOURCE INFORMATION

Type of water source in use is **GROUNDWATER**. There are two supply wells located off of Avila Road. During 2012, Well #8 supplied 78.5% and Well #9 supplied 21.5% of the water used.

Well Name	Date Installed	GPM **	Pumping Depth	Screened Depth	Total Depth
Well 8	December 1974	**554**	280 ft	310 ft – 845 ft	855 ft
Well 9	August 1984	**412**	320 ft	800 ft – 1050 ft	1070 ft

*** From September 12, 2012 pump efficiency testing ***

DRINKING WATER SOURCE ASSESSMENT INFORMATION & SUMMARY

The assessment was completed October 2002 by LPA Monterey County. The source is considered most vulnerable to Concentrated Animal Feeding Operations [CAFOs] as defined in Septic systems - high density [>1/acre]. The wells for the water system are located in an agricultural area adjacent to the Elkhorn Slough. Therefore, the wells may be vulnerable to flooding, synthetic organic compounds and nitrates. There have been no contaminants detected in the water supply recently, however the source is still considered vulnerable to activities located near the drinking water source. The El Toro Area of Monterey County is in severe groundwater overdraft conditions. A complete copy of the assessment information may be viewed at the Monterey County Health Department or at the following internet link:

http://swap.ice.ucdavis.edu/TSinfo/TSsources.asp?mySystem=2701683.

For more information, contact:

Lee H. Genz, Senior Environmental Professional	Phone: (831) 633-6785

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 6, 7, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (completed if bacteria detected)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0 (In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	0 (In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER
(Posted analysis results are from July 2011 EPA Lead & Copper Tap Water Sampling)

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90th percentile level detected	No. Sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	8	**20.3** *	**1**	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	8	0.208	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Well No. 8	Well No. 9	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	3/4/03	46	110	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) as $CaCO_3$	3/4/03	130	180	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided on page 5.*

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Well No. 8**	**Well No. 9**	**MCL (AL) [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Arsenic (ppb)	7/17/12	3.3	4.4	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	7/17/12	0.051	0.16	1.0	2.0	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Copper (ppm)	10/7/09	< 0.05	< 0.05	(AL=1.3)	0.30	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Chromium (ppb)	7/17/12	10.0	< 10.0	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	7/17/12	0.19	0.21	2.0	1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	7/17/12	< 0.20	0.34	2.0	1.2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nitrate as NO_3 (ppm) Nitrite as N (ppm) Nitrate+Nitrite as N (ppm)	7/17/12	2.8 < 0.052 0.68	1.6 <0.052 0.41	45.0 1.0 10.0	45.0 [1] 1.0 [1] 10.0 [1]	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	7/17/12	< 2.0	4.7	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

[1] For all three parameters MCLG = N/A.

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD (CONT) TABLE 4.1 - DISINFECTION BYPRODUCTS, RESIDUALS, & PRECURSORS)					
Chemical or Constituent (and reporting units)	**Sample Date**	**Distribution System**	**MCL [MRDL]**	**PHG (MCLG)**	**Typical Source of Contaminant**
TTHMs (ppb) [Total Trihalomethanes]	7/6/10	< 0.5	80	N/A	By-product of drinking water disinfection
HAA5 (ppb) [Haloacetic Acids]	7/6/10	< 1.0	60	N/A	Byproduct of drinking water disinfection
Chlorine as Cl_2 (ppm)	All year [2] for 2012	Range = 0.15 – 2.31 Average = 0.75	[4.0 as Cl_2]	(4.0 as Cl_2]	Drinking water disinfectant added for treatment
Control of DBP precursors [(TOC) Total Organic Carbon]	[3]		TT	N/A	Various natural and man-made sources

[2] Chlorine residual is measured daily during regular work weekdays. [3] Required only if the TTHM or HAA5 MCL were exceeded.

NOTE: An additional informational sample was obtained at Firewater Tank No. 3 (which supplies water only the Marine Mammal Center). The tank water was chlorinated because the chlorine injection system on the water line from the tank to the Marine Mammal Center was out of service. The sample results were also below the MCLs (22.4 ppb TTHMs, 20.7 ppb HAA5).

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD (CONT) TABLE 4.2 – INITIAL RADIONUCLIDE MONITORING [4]						
Chemical or Constituent (and reporting units)	**Sample Date**	**Well No. 8** [4]	**Well No. 9** [4]	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Gross Beta Particle Activity (pCi/L)	[4]	1.78	2.31	50 (a)	(0)	Decay of natural and man-made deposits
Gross Alpha Particle Activity (pCi/L)	[4] 7/17/12	2.01 < 1.16	2.02 3.32	15	(0)	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	[4]	0.064	0.055	5	(0) (b)	Erosion of natural deposits
Uranium (pCi/L)	[4]	0.97	1.345	20	0.43	Erosion of natural deposits

(a) Effective 6/11/2006, the gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level. (b) If reporting results for Ra-226 and Ra-228 as individual constituents, the PHG is 0.05 pCi/L for Ra-226 and 0.019 pCi/L for Ra-228.

[4] Results reported are the averages of the 2007 initial monitoring quarterly samples. Based on the results, the next scheduled sampling year was to be 2016. However, another sampling, for gross alpha only, was requested by the state Department of Public Health in 2012. Also the sampling requirements are currently being amended. Consequentially, the next scheduled sampling is really unknown.

**Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided on page 5.*

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Well No. 8**	**Well No. 9**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Color (Color Units)	3/4/03	10	15	15	N/A [6]	Naturally-occurring organic materials
Copper (ppm)	10/7/09	< 0.05	< 0.05	1.0	N/A [6]	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb)	3/4/03	< 100	250	300	N/A [6]	Leaching from natural deposits; industrial wastes
Manganese (ppb)	3/4/03	< 10.0	17.0	50	N/A [6]	Leaching from natural deposits
Turbidity (NTU)	3/4/03	< 1.0	1.1	5	N/A [6]	Soil runoff
Total Dissolved Solids (ppm)	3/4/03	260	470	1000	N/A [6]	Runoff/leaching from natural deposits
Specific Conductance (microsiemens)	7/17/12	555	1042	1600	N/A [6]	Substances that form ions when in water; seawater influence
Chloride (ppm)	3/4/03	61	180	500	N/A [6]	Runoff/leaching from natural deposits; seawater influence
Sulfate as SO4 (ppm)	3/4/03	7.4	19.0	500	N/A [6]	Runoff/leaching from natural deposits; industrial wastes

[6] There are no PHGs or MCLGs for constituents with secondary drinking water standards because these are not health-based levels, but set on the basis of aesthetics.

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Well No. 8**	**Well No. 9**	**Notification Level**	**Health Effects Language (Optional)**
Boron (ppm)	10/7/09	< 0.100	0.130	1 ppm	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Chromium-6 (ppb)	3/4/03 5/6/04	3.6	< 0.5	N/A	N/A

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided on page 5.*

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Lead at a tap water faucet	Old plumbing	Short Received lab report on 8/18/11 Corrected on 9/10/11	Replaced the affected plumbing fixtures with certified lead free units	Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Additional Language Reporting Requirement for the Lead Violation

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).

For Water Systems Providing Ground Water as a Source of Drinking Water

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES					
Microbiological Contaminants (complete if fecal-indicator detected)	**Total No. of Detections**	**Sample Dates**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
E. coli	0 (In the year)		0	(0)	Human and animal fecal waste
Enterococci	0 (In the year)		TT	n/a	Human and animal fecal waste
Coliphage	0 (In the year)		TT	n/a	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Ground Water Source Samples, Uncorrected Significant Deficiencies, or Ground Water TT

SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLE

SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES

VIOLATION OF GROUND WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

NOTE: Table 8 has been omitted because it does not apply to our water system. Table 8 is for systems providing surface water as a source of drinking water. The additional tables below our provided for additional information.

TABLE A-1 – DETECTION OF ADDITIONAL PARAMETERS WITH NO DRINKING WATER STANDARDS

Chemical or Constituent (and reporting units)	Sample Date	Well No. 8	Well No. 9	MCL	PHG (MCLG)	Typical Source of Contaminant
pH (units)	7/17/12	7.77	7.68	none	none	
Calcium (ppm)	9/20/11	37.0	63.0	none	none	
Calcium as $CaCO_3$ (ppm)	9/20/11	92.5	157.5	none	none	
Magnesium (ppm)	3/4/03	15.0	13.0	none	none	
Bicarbonate Alkalinity (ppm)	9/20/11	160	180	none	none	
Total Alkalinity [HCO_3^-] (ppm)	9/20/11	130	140	none	none	
Temperature (°C)	7/17/12	21.4 °C	26.1 °C	none	none	

TABLE A2 – SAMPLING REQUIREMENTS FOR NON-TRANSIENT NON-COMMUNITY WATER SYSTEM

TAP WATER	SOURCE WATER
Monthly Coliform sampling	Annual Nitrate sampling
Triennial Lead and Copper Tap Water Sampling. Last sampling was this year. Next sampling year is 2014.	Triennial Primary Drinking Water Standards sampling (*). Last sampling was in 2012. Next sampling year is 2015.
DISTRIBUTION SYSTEM	Asbestos sampling. Next sampling year was to be 2015; however, sampled in 2012 to coincide with Distribution System Asbestos requirement. Next sampling year is 2021.
Triennial Disinfection By-Products Rule (DBPR) Sampling. Last sampling was in 2010. Next sampling year is 2013.	Radionuclide Rule sampling. Next sampling year was to be 2016; every 9 years. However, the sampling requirements are changing, so the next sampling year is unknown.
Asbestos sampling. Required every 9 years. Last sampling was in 2012. Next sampling year is 2021.	Perchlorate Rule Sampling [1]. Same sampling schedule as the Triennial Primary Drinking Water Standards sampling.
Secondary Drinking Water Standards sampling required to be sampled only once. Sampled in 1997 and then additionally sampled in 2000 and 2003 at request of Health Department.	
Additional sampling required as regulations change or at the request of the Health Department	

(*) Synthetic Organic Compounds (SOC's) and Volatile Organic Compounds (VOC's) also sampled.

[1] In 2007, Perchlorate was added to the California Primary Drinking Water Standards with an MCL and a PHG of 6 ppb.

Consumer Confidence Report
Certification Form
(to be submitted with a copy of the CCR)

Water System Name: Moss Landing Mutual Water Company

Water System Number: FA0810155

The water system named above hereby certifies that its Consumer Confidence Report was distributed on June 17, 2013 *(date)* to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the California Department of Public Health.

Certified by: Name: FRANK SLYKAS

Signature:

Title: Secretary, Moss Landing Mutual Water Company

Phone Number: (831) 633-6700 Date: June 19, 2013

To summarize report delivery used and good-faith efforts taken, please complete the below by checking all items that apply and fill-in where appropriate:

_____ CCR was distributed by mail or other direct delivery methods. Specify other direct delivery methods used: _____

_____

X "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:

_____ Posting the CCR on the Internet at www._____

X Mailing the CCR to postal patrons within the service area (attach zip codes used)

_____ Advertising the availability of the CCR in news media (attach copy of press release)

_____ Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)

X Posted the CCR in public places (attach a list of locations) **On Cover Letter**.

_____ Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools

_____ Delivery to community organizations (attach a list of organizations)

_____ Other (attach a list of other methods used)

_____ *For systems serving at least 100,000 persons:* Posted CCR on a publicly-accessible internet site at the following address: www._____

_____ *For privately-owned utilities:* Delivered the CCR to the California Public Utilities Commission